

UEC STATUS REPORT & ACTION ITEMS

Present UEC Membership

Chair-Elect (3-year term):	Rene Bellwied, Wayne State
UEC Member 3-year term:	Helen Caines, Yale
	Jim Sowinski, Indiana
	Chuck Whitten, UCLA
Student/Postdoc Reps.	Sarah Campbell, SUNYSB
1-year term:	Christine Nattrass, Yale
Appt. Member 2-year term:	Michael Murray, Kansas
	Gerco Onderwater,
Continuing Members:	John Hill, Iowa State, Chair
	Brant Johnson, BNL, Past Chair
	Abhay Deshpande, SUNYSB
	Barbara Erazmus, Subatech
	Matthias Grosse-Perdekamp, UIUC
	John Lajoie, Iowa State
	Bill Morse, BNL
	Greg Nelson, Loma Linda
	George Stephans, MIT
	Julia Velkovska, Vanderbilt

User's Group Ex-Officio Members

BNL employees holding the following positions are registered as Ex-Officio members of the group: the BNL Director, the BNL Deputy Director for Science and Technology, the responsible BNL Associate Directors, the Chairs of the Collider-Accelerator and Physics Departments, the Division Heads of the Accelerator and Experimental Support Facilities of the Collider-Accelerator Department, and the Director of the Users' Center.

BNL Director :	Sam Aronson
BNL Deputy Dir. For Sci. & Tech.	Peter Bond
Assoc. Lab. Dir. for HEP and NP:	Peter Bond
Chair of Collider-Accelerator Dept.:	Derek Lowenstein
Chair of Physics Department:	Sally Dawson
Accelerator Division Head:	Thomas Roser
Exp. Support Facilities Head:	Phil Pile
Director of Users' Center:	Susan White-DePace

User's Center Staff

- **Angela Melocoton**
- **Kelly Guiffreda**
- **Regina Robinson**
- **and ... Susan White De Pace**

The Four UEC Working Groups

Site Access and Science

- **Physical Access (Visa, Guest Appointment, Gate Access)**
- **Computer Access (Cybersecurity, Scientific Computing)**
- **Safety, Training, Scientific Computing and data transfer issues**

Funding, Politics, and Programmatics

- **Funding: Facility Operations, Research, and User Support.**
- **Political Action: Interactions with DOE, OSTP, OMB, Congress**
- **Programmatic Issues of broad user interest (e.g., test beams)**

Meetings, Communication, and Outreach

- **Annual Users' Meeting and semi-annual Users' Group Meetings**
- **Quarterly Open Forums, Monthly UEC Meetings, and Web Pages.**
- **User communication, including outreach to the wider community.**

Quality of Life

- **Housing, Transportation, & Food; Recreation and Socialization**
- **Liaisons to Association for Students And Postdocs (ASAP)**
- **Site Enhancements (better lighting, foot paths, maintenance)**
- **Agenda input for Open Forums at BNL and User Group Meetings**

UEC Working Groups

SAS	FPP	MCO	QOL
White-DePace	Hill	Bellwied	Johnson
Erazmus Hill Johnsom Lajoie Nelson Oderwater Sowinski Velkovska Whitten Bellwied	Bellwied Caines Deshpande Erazmus Johnson Lajoie Morse Murray Sowinski Velkovska White-DePace	Caines Campbell Deshpande Grosse-Perdekamp Hill Johnson Nattrass Stephans White-DePace	Campbell Hill Murray Nattrass Nelson Onderwater Stephans White-DePace Whitten Bellwied

Working Groups

SAS: Site Access & Science: Susan Chair

FPP: Funding, Politics and Programmatic: John Chair

(3-chair's meetings, CVD, letters to DC, NUFO)

MCO: Meetings, Communications and Outreach: Rene Chair

(organize June User's Meeting, run Open Forum)

QOL: Quality of Life: Brant Chair

(organize thesis competition for June User's Meeting)

Susan, Brant, Rene and I are members of all four working groups.

Request Working Group Chairs

SAS: Site Access & Science: Susan Chair

User Center issues and plans Nashville

FPP: Funding, Politics and Programmatic: John Chair

Latest HED, Senate letters, OMB-OSTP one page

MCO: Meetings, Communications and Outreach: Rene Chair

Nashville plans, Organizers and dates for Annual

User's Meeting

QOL: Quality of Life: Brant Chair

Plans for coffee house and news home for ASAP

FUNDING, POLITICS & PROGRAMMATICS

FPP WORKING GROUP REPORT

- A. Prepared one page document explaining why RHIC-II and e-RHIC (?) are competitive with LH and merit funding. (for officials OMB and OSTP)
Wish to finalize today to get comments from BNL before producing final document.
- B. Decided 3-Chairs meeting not needed this Fall. Will consider such a meeting with Senate staffers in Spring 2007.

FUNDING, POLITICS & PROGRAMMATICS

FPP WORKING GROUP REPORT (CONT.)

- C. Sent sample letter to persons who visited offices of House Congress members on the Energy and Water Committee. Waiting for resolution of \$20 M HED problem before thanking Senators.
- D. Prepared letter persons can send to their Senators requesting that they support elimination of HED language in Senate Energy and Water Bill. We were requested to hold off on that effort until things were clarified.

FUNDING, POLITICS & PROGRAMMATICS

FPP WORKING GROUP REPORT (CONT.)

E. Missed National User Facility Organization (NUFO) meeting. They trying to establish visits to local congressional offices during the run up to elections. I will find out what progress and how we can help. NUFO decided not to have visit of user organization Chairs to D.C. in Fall 2006. Maybe later.

The Relativistic Heavy Ion Collider (RHIC)

From Discovery to Understanding



Purpose:

To study the fundamental properties of matter from elementary atomic particles to the evolution of the universe

Sponsor:

The Division of Nuclear Physics within the U.S. Department of Energy's Office of Science

Features:

- Two crisscrossing rings in a tunnel 2.4 miles in circumference
- 1,740 superconducting magnets

- Two experiments: PHENIX and STAR

Users: 1,000 per year from JJ Universities and KK National Laboratories in twenty U.S. states, plus LL international institutions.

PHENIX: 550 collaborators from 69 institutions in 13 countries

STAR: 530 collaborators from 55 institutions in 12 countries.

The Relativistic Heavy Ion Collider (RHIC) at Brookhaven National Laboratory (BNL) is a unique, flexible, and world-leading Nuclear Physics facility. The President's American Competitiveness Initiative enables a vigorous scientific program at RHIC that will seek quantitative understanding of the new state of matter discovered at RHIC, and that will search for the missing spin of the proton.

- The LHC (a new European collider) will add new higher energy measurements to aid us in understanding heavy-ion collisions, but the LHC does not replace the studies that must be done at RHIC. Instead, the LHC is complimentary to the RHIC research program.
- RHIC will perform detailed, systematic studies of dense matter. The LHC will devote only limited time to experiments with heavy ions, and will thus not be as able to extend our understanding.
- As the world's first and only polarized proton collider, RHIC will also make fundamental contributions to understanding the spin structure of the proton and nature of the strong force.
- The new form of matter (a "nearly perfect" liquid) discovered at RHIC has unexpected properties that cry out for further exploration over a broad range of collision energies.
- The future potential of eRHIC to study electron-ion collisions will lead to further discoveries and understanding.

Exciting Discoveries at RHIC

The New State of Matter behaves like a "Nearly-Perfect" Liquid

Fast quarks known as jets lose lots of energy.

The quarks themselves are observed to flow

Significant reduction in overall Particle Production

Compelling Needs for Future Understanding

What is the viscosity of the RHIC liquid?
What are its properties?

Can we use these jets to take a "picture" of the collision?
How does the energy loss happen?

What pressure drives this flow? Are the quarks unattached
Or do they cluster with other quark and gluons?

What role do gluons play in understanding the early stages of heavy-ion collision dynamics?

